

COPY OF PAPERS
ORIGINALLY FILED

PTO/SB/21 (08-00)

Approved for use through 10/31/2002 OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	09/433,609
Filing Date	11/02/1999
First Named Inventor	Etienne Barnard et al.
Group Art Unit	2641
Examiner Name	A. Armstrong
Attorney Docket Number	111385.132

Total Number of Pages in This Submission

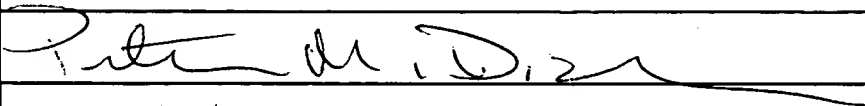
RECEIVED
APR 18 2002

ENCLOSURES (check all that apply)

Technology Center 2600

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input checked="" type="checkbox"/> Amendment / Reply	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
<input checked="" type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	Post Card
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Response to Missing Parts/ Incomplete Application	Remarks	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Peter M. Dichiaro
Signature	
Date	4-4-02

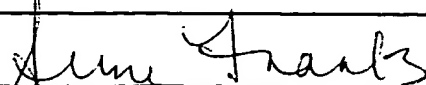
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date:

4/4/2002

Typed or printed name Susie Fernandez

Signature



Date

4-4-02

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



10/A
art
4/24/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

COPY OF PAPERS
ORIGINALLY FILED

Applicants: Etienne Barnard et al.
Serial No.: 09/433,609
Filed: November 2, 1999
For: Method and Apparatus for Discriminative Training of Acoustic Models of a Speech Recognition System
Examiner: Armstrong, A.
Art Unit: 2641

RECEIVED

APR 18 2002

Technology Center 2600

Reply

This reply is in response to the Office Action of October 4, 2001.

In the Claims

Please amend the claims to read as follows. A marked up version of the claims is provided as Attachment A. Unamended claims are also shown for convenience but in smaller font size.

- A1
1. (Amended) A method of unsupervised training of acoustic models of a segmentation-based automatic speech recognition system, comprising the steps of:
receiving correct alignment data that represents a correct segment alignment of an utterance that was received by the speech recognition system;
receiving wrong alignment data that represents an alignment of the utterance that is known to be incorrect based on information received from the speech recognition system and describing the utterance;
identifying a first phoneme in the correct alignment data that corresponds to a second phoneme in the wrong alignment data and in which the first phoneme received a worse recognizer score than the second phoneme;
modifying a first acoustic model of the first phoneme by moving at least one mean value thereof closer to the feature values used to score the first phoneme.